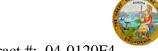
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 01.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-029919 Address: 333 Burma Road **Date Inspected:** 16-Aug-2013

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV American Bridge/Fluor Enterprises, a JV Contractor: **Location:** Job Site

Jesus Cayabyab & Bernie Docena CWI Present: **CWI Name:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** See Below

Summary of Items Observed:

Quality Assurance Inspector (QAI) Edward Leach was at the American Bridge/Flour (ABF) job site at Yerba Buena Island between the times noted above in order to monitor Smith Emery Quality Control (QC) functions and the in process work being performed by ABF personnel. The following items were observed:

Tower Skirt Ring Beam

The QAI periodically observed ABF welding personnel Gao Wu Chin utilizing the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) position with Atom Arc E7018-1 HR4, 1/8" diameter electrode to complete welding for the Complete Joint Penetration (CJP) field splice on the tower skirt ring beam on north CD Corner of the north shaft. At this time the QAI observed the welder was in the process of completing cover passes on side B. As welding continued the QAI verified welding amperage at approximately 125 amperes. The QAI verified Welding Procedure Specification (WPS) ABF-WPS-D1.5-1020, Rev1 and ABF-WPS-D1.5-1160 for compliance. Later in the shift the QAI witnessed QC Inspector Bernie Docena perform 100% shear wave Ultrasonic Testing (UT) verification for CJP weld splice using a transducer/70 degree plastic wedge combination. Mr. Bernie Docena performed a straight beam examination prior to shear wave. No relevant indications were observed and the weld was accepted by QC.

ESW Weld Repair "V"

The QAI periodically observed ABF welding personnel Mike Jimenez utilizing the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) position with Atom Arc E7018-1 H4R, 5/32" diameter electrode to weld excavation for a weld repair. The welding is taking place on the exterior (west) side at joint V, weld #E-043 #14 on Face B side for a repair designated as 201305-009. Excavation dimensions are noted as Y=5000mm-5450mm,

WELDING INSPECTION REPORT

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Length=450mm, Width=90mm, Depth=78mm. The welder was observed applying cover passes on this date. The QAI observed the interpass temperature was maintained at approximately 390 degrees Fahrenheit with electric heating coil blankets through a heat induction system. As welding continued the QAI periodically verified welding amperage at approximately 140 amperes. Several verifications of this reading were made throughout the day with similar readings. The Welding Procedure Specification (WPS) designated for this repair was identified as ABF-WPS-D1.5-1000Repair, Rev.3. QC Inspector Bernie Docena was monitoring the progress of this repair on this date.

ESW Weld Repair "Q"

The QAI periodically observed ABF welding personnel Donald Plumb utilizing the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) position with Atom Arc E7018-1 H4R, 5/32" diameter electrode to weld excavation for a weld repair. The welding is taking place on the exterior (east) side at joint Q, weld #E-043 #16 on Face A side for a repair designated as 201308-003. Excavation dimensions are noted as Y=3390mm-3760mm, Length=370mm, Width=70mm, Depth=55mm. The welder was observed applying filler passes on this date. The QAI observed the interpass temperature was maintained at approximately 410 degrees Fahrenheit with electric heating coil blankets through a heat induction system. As welding continued the QAI periodically verified welding amperage at approximately 145 amperes. Several verifications of this reading were made throughout the day with similar readings. The Welding Procedure Specification (WPS) designated for this repair was identified as ABF-WPS-D1.5-1000Repair, Rev.3. QC Inspector Bernie Docena was monitoring the progress of this repair on this date.

The welding & workmanship observed on this date appeared to be in general compliance with the contract specifications. The following pictures below detail some of the observations made on this date.





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Summary of Conversations:

General conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Leach,Ed	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer